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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,912	12/26/2001	Sung Hee Park	P67475US0	7598

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EXAMINER
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WOZNIAK, JAMES S

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/025,912	<b>Applicant(s)</b> PARK ET AL.	
	<b>Examiner</b> James S. Wozniak	<b>Art Unit</b> 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2001.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on 12/26/2000. It is noted, however, that applicant has not filed a certified copy of the 2000-82179 application as required by 35 U.S.C. 119(b).

### *Claim Objections*

2. **Claims 2, 5, and 7** are objected to because of the following informalities:

“The user” in line 5 of claim 2 should be changed to --a user-- in order to provide proper antecedent basis.

“The user” in line 14 of claim 5 should be changed to --a user-- in order to provide proper antecedent basis.

“The user” in line 16 of claim 7 should be changed to --a user-- in order to provide proper antecedent basis.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-3 and 5-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al (*U.S. Patent: 5,317,508*) in view of Mauldin et al (*U.S. Patent: 5,664,227*).

With respect to **Claims 1 and 5**, Okamoto discloses:

A dictionary storing means for storing a dictionary used for processing a natural language (*Col. 6, Lines 30-39; and dictionaries, Fig. 1*);

A means for storing color and shape information (dictionaries, Fig. 1; and Col. 10, Lines 22-42);

A query input means for receiving a query sentence that describes the color and the shape of the image by using a natural language (*Col. 4, Lines 48-67; and Col. 2, Lines 52-61; and Col. 10, Lines 22-42*);

An analyzing means for analyzing the query sentence based on the dictionary information and generating analyzed words (*Col. 4, Lines 48-67*);

A color/shape recognizing means for recognizing whether the analyzed words represent the color or the shape (*Col. 2, Lines 20-23, Col. 5, Lines 5-23; Col. 10, Lines 22-42, and Col. 11, Lines 34-55*);

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A color/shape threshold database constructing means for mapping and storing color related words and storing edge information corresponding to shape related words (*Col. 2, Lines 20-23*);

A color/shape threshold retrieving means for retrieving color and the edge information corresponding to the analyzed words from the color/shape threshold storing means (*image retrieving means, Col. 7, Lines 19-23; Fig. 1, and Col. 10, Lines 22-42*);

A retrieving result output means for providing image data searched in the color/shape threshold retrieving means (*image displaying means, Fig. 1*).

Although Okamoto teaches the use of color and shape in image identification and retrieval, Okamoto does not specifically disclose the use of color histograms, however Mauldin recites an image retrieval system utilizing natural language processing (Fig. 1), color histograms, and edge detection (*Col. 5, Lines 31-67*).

Okamoto and Mauldin are analogous art because they are from a similar field of endeavor in image retrieval systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Okamoto with the use of color histograms and edge detection information in an image retrieval system as taught by Mauldin to implement more efficient image comparison and categorization (*Mauldin, Col. 5, Lines 60-67*).

With respect to **Claims 2 and 6**, Okamoto teaches the ability to add color and shape information to a database (*Col. 10, Lines 22-42*), while Mauldin teaches the use of color histograms and edge detection as applied to claim 1.

With respect to **Claim 3**, Okamoto teaches storing color and shape descriptions in a table (Col. 10, Lines 22-42), while Mauldin teaches the use of color histograms and edge detection as applied to claim 1.

With respect to **Claim 7**, Okamoto in view of Mauldin teaches the system and method for image searching as applied to claims 1 and 5, but does not specifically suggest method storage as a program on a computer readable medium, however the examiner takes official notice that it would have been obvious to one of ordinary skill in the art, at the time of invention, to store the image searching method taught by Okamoto in view of Mauldin as a program on a computer readable medium to increase method compatibility and usability by providing a means for method use with multiple computer systems.

**Claim 8** contains subject matter similar to claim 2, and thus, is rejected for the same reasons.

5. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al (*U.S. Patent: 5,317,508*) in view of Mauldin et al (*U.S. Patent: 5,664,227*), and further in view of Jain et al (*U.S. Patent: 5,983,237*).

With respect to **Claim 4**, Okamoto in view of Mauldin teaches the image query system utilizing color and shape information, as applied to claim 3. Okamoto in view of Mauldin do not specifically disclose the use of a qualification relation, however Jain teaches such a relation (*Col. 9, Lines 12-24*).

Okamoto, Mauldin, and Jain are analogous art because they are from a similar field of endeavor in image retrieval systems. Thus, it would have been obvious to a person of ordinary

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skill in the art, at the time of invention, to modify the teachings of Okamoto in view of Mauldin with the qualification relations taught by Jain in order to eliminate unnecessary visual senses when constructing a query (*Jain, Col. 9, Lines 18-20*).

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Balogh et al (*U.S. Patent: 5,493,677*)- teaches an image retrieval system utilizing natural language queries.

Wactlar et al (*U.S. Patent: 5,835,667*)- teaches an image query system utilizing natural language, color, and shape information.

Bhandari et al (*U.S. Patent: 5,893,464*)- teaches a multimedia retrieval system utilizing natural language queries.

Li et al (*U.S. Patent: 5,930,783*)- teaches a means for semantically based image retrieval.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak  
10/24/2005



W. R. YOUNG  
PRIMARY EXAMINER